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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,091	07/31/2003	Philip Kwan	019959-001610US	3218

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EXAMINER	
DADA, BEEMNET W	
ART UNIT	**PAPER NUMBER**
2135	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/631,091	KWAN, PHILIP	
	Examiner	Art Unit	
	Beemnet W. Dada	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/31/03*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/31/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-19 have been examined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 9, 11 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Doyle et al. US 7,134,012 (hereinafter Doyle).

4. As per claim 9, Doyle teaches an ARP collector method for detecting ARP spoofing, the method comprising:

receiving ATP packets from a first subnet of a computer network [column 9, lines 6-15 and figures 1 and 2];

receiving ATP packets from a second subnet of the computer network [column 9, lines 6-15 and figures 1 and 2];

storing information from the ATP packets from the first subnet in database of the ARP collector [column 9, lines 38-46 and column 8, lines 30-41];

storing information from the ATP packets from the second subnet in the database of the ARP collector [column 9, lines 38-46 and column 8, lines 30-41]; and

analyzing received ATP packets and information in ARP collector database to determine when a spoofed ARP reply has been received on a port of the computer network [column 9, lines 15-43].

5. As per claim 11, Doyle further teaches the method further comprising, identifying a MAC address as a source for a spoofed ARP reply and filtering the identified address at port of the computer network which received the spoofed ARP reply [column 9, lines 15-45].

6. As per claim 12, Doyle further teaches the method wherein the ATP packets from the first subnet and the ATP packets from the second subnet include ARP reply information received on ports of the network devices in the respective subnets [column 9, lines 15-45].

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-8, 10 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle US 7,134,012 B2 in view of Schunk et al. US 6,980,515 B1 (hereinafter Schunk).

9. As per claims 1, 2, 10 and 13-16, Doyle teaches a method/device for detecting ARP spoofing, including:

receiving an ARP reply on a port of a network device [column 9, lines 6-15];

generating a data packet, wherein the data packet includes information from the ARP reply [column 9, lines 38-46 and column 8, lines 30-41];

storing information contained in the data packet in a database of an ARP collector [column 9, lines 38-46 and column 8, lines 30-41]; and

analyzing the information in the database to determine when ARP spoofing occurs [column 9, lines 15-43]. Doyle teaches storing information about IP address and MAC address [see column 10, lines 45-50], but fails to teach generating a data packet, wherein the data packet includes an identification of the port on which the ARP reply was received (string information indicating a port on which an ARP reply was received). However, it is well known in the art to store information indicating a port on which an ARP reply is received in conjunction with MAC and IP address information. For example, Schunk teaches a network system, that stores ARP reply information indicating MAC address which identifies a source of an ARP reply, IP address which identifies a source of an ARP reply and a port on which an ARP reply was received (see, figure 8, IP ARP table). It would have been obvious to one having ordinary skill in the art at the time of the invention to employ the teachings of Schunk within the system of Doyle in order to enhance the security of the system.

10. As per claim 3, Doyle further teaches the method wherein the information stored in the database includes MAC address of a device which generated an ARP reply and an IP address given as a source IP address in the ARP reply [column 9, lines 38-46 and column 8, lines 30-41].

11. As per claim 4, Doyle further teaches the method wherein the information stored in the database includes a MAC address of a device which generated an ARP reply, and an IP address given as a source IP address in the ARP reply and a time at which the ARP reply was received on the port [column 9, lines 38-46 and column 8, lines 30-41].

12. As per claims 5, 6 and 19, Schunk further teaches the method wherein the information stored in the database includes a MAC address of a device which generated the ARP reply and an IP address given as a source IP address in the ARP reply and a time at which the ARP reply was received on the port and an identification on which the ARP reply was received [see figure 8].

13. As per claims 7, 8, 17 and 18, Doyle further teaches the method wherein when it is determined that there is a spoofed ARP reply filtering a MAC address which generated the spoofed ARP reply at a port at which the spoofed ARP reply was received [column 9, lines 15-43].

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beemnet W. Dada whose telephone number is (571) 272-3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Beemnet Dada

January 6, 2007

KIM VU
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